

## **ABSTRACT**

An automatic sample loader is for use in association with a mass spectrometer and at least one vial containing a sample. The loader includes a vial block, an insertion head, an insertion tube, a mechanism for pushing the sample out of the vial and a mechanism for moving the insertion head relative to the vial. The vial block has at least one vial cavity and each vial cavity is adapted to receive a vial. The insertion head is adapted to be sealingly engageable in the vial cavity. The insertion tube is operably connected to the mass spectrometer through the insertion head, such that the tube extends into the vial when the insertion head is sealingly engaged in the vial cavity. The pushing mechanism is adapted to push the sample out of the vial and into the tube. The moving mechanism is adapted to move the insertion head relative to the vial block from an engaged position to a disengaged position.